

Lebanon Municipal Airport  
Attn: Mr. Steve Miller, Airport Manager  
5 Airpark Road  
West Lebanon, NH 03784

## **WATER QUALITY CERTIFICATION**

In Fulfillment of

### **Section 401 of the United States Clean Water Act (33 U.S.C 1341)**

401 Certification No. 2006-007

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<b>Activity Name</b>	South Apron Development Project
<b>Activity Location</b>	Lebanon, New Hampshire
<b>Affected Surface Waters</b>	Unnamed tributary to Connecticut River; unnamed wetlands
<b>Owner/Applicant</b>	Lebanon Municipal Airport 5 Airpark Road West Lebanon, NH 03784
<b>Appurtenant Permit(s):</b>	U.S. Army Corps of Engineers File No. NAE-2005-1015 NH DES Wetlands Bureau Permit No. 2006-00535 NH DES Alteration of Terrain Application No. 060302-01
<b>DATE OF APPROVAL</b> (subject to Conditions below)	____ __, 2006

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### **A. INTRODUCTION**

Lebanon Municipal Airport (Applicant) proposes the construction and operation of a new south apron and three hangars (Activity) in Lebanon, New Hampshire. Construction will include filling approximately 5.25 acres of wetlands and general disturbance of earth. Operation will include the use of the apron and hangars by corporate aircraft and automotive traffic. The Activity is proposed to meet existing aircraft demand, future general aviation needs, and conventional/corporate hangar capacity needs. Surface waters affected by the Activity include an unnamed tributary to the Connecticut River and unnamed wetlands.

This 401 Water Quality Certification (Certification) applies to the Activity described, above. This 401 Certification documents laws and regulations, determinations, and 401 Certification conditions relative to the

attainment/maintenance of NH surface water quality standards including NH RSA 485-A:8 II, and NH Code of Administrative Rules Env-Ws 1700.

## **B. WATER QUALITY CERTIFICATION APPROVAL**

Based on the findings and conditions noted below, the New Hampshire Department of Environmental Services (DES) has determined that any discharge associated with the Activity will not violate surface water quality standards, or cause additional degradation in surface waters not presently meeting water quality standards. DES hereby issues this 401 Certification subject to the conditions defined in Section E of this 401 Certification, in accordance with Section 401 of the United States Clean Water Act (33 U.S.C. 1341).

## **C. STATEMENT OF FACTS AND LAW**

- C-1. Section 401 of the United States Clean Water Act (33 U.S.C. 1341) states, in part: "Any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate...that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title.....No license or permit shall be granted until the certification required by this section has been obtained or has been waived...No license or permit shall be granted if certification has been denied by the State..."
- C-2. Section 401 further states, in part "Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations...and shall become a condition on any Federal license or permit subject to the provisions of this section."
- C-3. RSA 485-A:8 and Env-Ws 1700 (Surface Water Quality Regulations, effective December 3, 1999) together fulfill the requirements of Section 303 of the Clean Water Act that the State of New Hampshire adopt water quality standards consistent with the provisions of the Act.
- C-4. Env-Ws 1701.02, entitled "Applicability", states that:
  - "(a) These rules shall apply to all surface waters.
  - "(b) These rules shall apply to any person who causes point or nonpoint source discharge(s) of pollutants to surface waters, or who undertakes hydrologic modifications, such as dam construction or water withdrawals, or who undertakes any other activity that affects the beneficial uses or the level of water quality of surface waters."
- C-5. Env-Ws 1702.18 defines a discharge as:

- "a. The addition, introduction, leaking, spilling, or emitting of a pollutant to surface waters, either directly or indirectly through the groundwater, whether done intentionally, unintentionally, negligently, or otherwise; or
  - "b. The placing of a pollutant in a location where the pollutant is likely to enter surface waters."
- C-6. Env-Ws 1702.39 defines a pollutant as: "pollutant" as defined in 40 CFR 122.2. This means "dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water."
- C-7. Env-Ws 1702.46 defines surface waters as "perennial and seasonal streams, lakes, ponds and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses and other bodies of water, natural or artificial," and waters of the United States as defined in 40 CFR 122.2."
- C-8. Surface waters are navigable waters for the purposes of certification under Section 401 of the Clean Water Act. Surface waters are jurisdictional wetlands for the purposes of wetlands permitting under RSA 482-A.
- C-9. Env-Ws 1703.03(c)(1) states that "All surface water shall be free from substances in kind or quantity which:
  - "a. Settle to form harmful deposits;
  - "b. Float as foam, debris, scum or other visible substances;
  - "c. Produce odor, color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated uses;
  - "d. Result in the dominance of nuisance species; or
  - "e. Interfere with recreational activities."
- C-10. Env-Ws 1703.19, entitled "Biological and Aquatic Community Integrity", states that
  - "a. The surface waters shall support and maintain a balanced, integrated and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region; and
  - "b. Differences from naturally occurring conditions shall be limited to non-detrimental differences in community structure and function."

- C-11. Env-Ws 1703.21 (a)(1) states that "Unless naturally occurring or allowed under part Env-Ws 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that injure or are inimical to plants, animals, humans or aquatic life."
- C-12. Env-Ws 1703.07 through Env-Ws 1703.11 contains standards relative to dissolved oxygen, bacteria, benthic deposits, oil and grease, and turbidity.
- C-13. The Activity reviewed for this 401 Certification requires a federal wetlands permit under the federal Clean Water Act Section 404. The U.S. Army Corps of Engineers (USACE) provided public notice for the Activity on March 7, 2006.
- C-14. The Applicant is responsible for the Activity, which includes construction and operation.
- C-15. The Applicant submitted an application for 401 Certification under letter dated May 24, 2006, which was received by DES on May 24, 2006. Through its 401 Certification application, the Applicant identified Alternative 3 – South Apron Development as the proposed Activity.
- C-16. DES Wetlands Bureau issued Wetlands and Non-Site Specific Permit No. 2006-00535 on April 27, 2006 for alterations or impacts to jurisdictional wetlands associated with the Activity.
- C-17. DES Alteration of Terrain (AoT) Program is currently processing an AoT permit application by the Applicant.

#### **D. FINDINGS**

- D-1. The Activity will result in a discharge and may cause the permanent alteration of or temporary impacts to surface waters.
- D-2. Storm water runoff, including snowmelt, and groundwater flow to surface waters from within the area affected by the Activity during warm and cold-weather conditions are discharges under the definitions of Env-Ws 1702.18.
- D-3. The Activity requires water quality certification under Section 401 of the federal Clean Water Act.
- D-4. The Activity will temporarily and permanently alter or impact wetlands under the jurisdiction of DES. The 401 Certification decision relies, in part, on an approved permit from the DES Wetlands Bureau for the potential construction-related impacts to jurisdictional wetlands. Through its issuance, the DES wetlands permit addressed impacts to jurisdictional wetlands.
- D-5. The Activity will temporarily and permanently alter or impact surface hydrology, under the jurisdiction of DES. The 401 Certification decision relies, in part, on an approved permit from the DES AoT Program for the potential construction and operation-related impacts, such as peak runoff, associated with the Activity.

Through its processing and anticipated issuance, the DES AoT permit will address the impacts to surface hydrology.

- D-6. The unnamed tributary to the Connecticut River and the unnamed wetlands within and adjacent to the Activity are the surface waters affected by the Activity. The affected surface waters are Class B waterbodies; Class B New Hampshire surface water quality standards (SWQS) apply to the Activity. Class B waterways are considered suitable for aquatic life, primary and secondary contact recreation, fish consumption, wildlife and, after adequate treatment, as a water supply.
- D-7. During construction, the placement of fill, installation of culverts, and disturbance of earth within the Activity boundary may temporarily increase turbidity levels in waterbodies adjacent to or downstream from the area affected by the Activity, particularly during wet-weather conditions. Sediments transported during wet-weather events may settle to form benthic deposits in waterbodies adjacent to or downstream from the Activity boundary under low river flow or dry-weather conditions.
- D-8. Proper installation and maintenance of the stormwater Best Management Practices (BMPs) required through DES Wetlands Bureau Permit No. 2006-00535 and the AoT permit, once issued, are necessary to maximize the effectiveness of the BMPs. Improper installation or failure of the proposed BMPs may cause discharge of pollutants to surface waters, which may cause violations of surface water quality standards.
- D-9. The Activity includes the creation of impervious surfaces, including an apron, hangars, and automotive parking areas. The use of the impervious surfaces by aircraft and automotive traffic can cause the deposition of metals including but not limited to copper, lead, and zinc, and petroleum-based compounds such as oil and grease on impervious surfaces. Stormwater runoff can mobilize and transport metals and petroleum-based compounds from impervious surfaces. The Applicant, in its 401 Certification application, stated its intent to mitigate water quality impacts through the installation of temporary and permanent erosion and pollution control measures, such as silt fences and detention ponds.
- D-10. The potential effects of runoff on surface waters can be evaluated through a loading analysis. Specifically, a loading analysis can be used to determine the difference between pre-development and post-development loads for specific pollutants for a typical year.
- D-11. The Applicant, in its 401 Certification application, noted "...an increase in forecasted aircraft operations and the need to accommodate the growing trend toward larger and more efficient corporate aircraft..." This may result in increased applications of anti- and de-icing agents such as road salt, glycols, or other compounds for use on roadways and aircraft. An anti- and de-icing management plan can be developed to minimize impacts to surface water quality.

- D-12. Water quality data do not exist for the unnamed tributary. Monitoring is necessary for surface waters affected by the Activity during both the construction and operation periods to evaluate water quality affected by the Activity relative to surface water quality standards.

### **E. WATER QUALITY CERTIFICATION CONDITIONS**

- E-1. The Activity shall not cause or contribute to a violation of surface water quality standards. If DES determines that surface water quality standards are being violated, DES may modify this Certification to include additional conditions to ensure compliance with surface water quality standards, when authorized by law, and after notice and opportunity for hearing.
- E-2. The Applicant shall allow DES to inspect the Activity at any time to monitor compliance with the conditions of this 401 Certification.
- E-3. The Applicant shall consult with DES regarding any proposed modifications to the Activity, including construction or operation, which may result in a change in discharge to surface water, to determine whether this 401 Certification requires amendment.
- E-4. The Applicant shall prepare and submit a pre- and post-development loading analysis for review and approval by DES Watershed Management Bureau at least 90 days prior to construction. The loading analysis shall include pollutant load estimates, accompanied by estimates of removal efficiencies, for total copper, total lead, total zinc, total phosphorus, total nitrogen, biochemical oxygen demand, total suspended solids, and bacteria.
- E-5. The Applicant shall prepare and submit a monitoring plan for review and approval by DES Watershed Management Bureau at least 60 days prior to construction. The Applicant shall conduct monitoring in accordance with the approved plan.
- E-6. The Applicant shall prepare and submit an aircraft anti- and de-icing management plan for review and approval by DES Watershed Management Bureau at least 60 days prior to full operation of the new apron. The Applicant shall implement the plan upon approval.
- E-7. The Applicant shall install and maintain BMPs to minimize pollutant loads from the Activity and to ensure that post-development loads for any pollutant found to cause violations of state water quality standards do not exceed pre-development loads
- E-8. The conditions included in DES Wetlands Bureau Permit 2006-00535, including any amendments, shall become conditions of this 401 Certification upon issuance of this 401 Certification.
- E-9. The conditions included in DES Alteration of Terrain Permit, upon its issuance and including any amendments shall become conditions of this 401 Certification upon issuance of this 401 Certification.

## **F. APPEAL**

If you are aggrieved by this decision, you may appeal the decision to the Water Council. Any appeal must be filed within 30 days of the date of this decision, and must conform to the requirements of Env-WC 200. Inquires regarding appeal procedures should be directed to Michael Sclafani, DES Council Appeals Clerk, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095; telephone 603-271-6072.

If you have questions regarding this 401 Certification, please contact Paul Piszczek at (603) 271-2471.

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Harry T. Stewart, P.E.  
Director, Water Division

cc: Collis Adams, DES Wetlands Bureau  
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